MEMS Sensors

MEMS Gyros
- ±100 ~ ±5000°/s Full Scale
- 0.02%FS Non Linearity
- 10°/h Bias Stability (1σ)
- 0.15°/√h Random Walk

MEMS Accelerometers
- ±2 ~ ±1000g Full Scale
- 0.1mg Bias Stability
- 300ppm Scale Factor Stability
- 0.1%FS Non Linearity

MEMS Vibration Sensors
- ±2 ~ ±20,000g Full Scale
- 0 ~ 10kHz Bandwidth
- 0.2%FS Non Linearity
- 1µg Resolution

Micro Inertial /GNSS Integrated Navigation systems
- Heading
  - ±180° Full Scale
  - <1% Accuracy
  - 0.01° Resolution
- Attitude
  - Full Scale: ±180° Roll, ±90° Pitch
  - <0.3° Dynamic Accuracy
  - 0.01° Resolution

MIMU
- MEMS Accelerometers
  - ±2 ~ ±200g Full Scale
  - 0.1%FS Non Linearity
  - 0.1mg Bias Stability

MEMS Crash Sensors
- ±100 ~ ±2000g Full Scale
- 0 ~ 5000Hz Frequency Response
- 1%FS Non Linearity

MEMS High g Sensors
- ±20,000 ~ ±100,000g Full Scale
- 0 ~ 50kHz Frequency Response
- 5%FS Non Linearity

Dual-axis inclinometers
- ±5° ~ ±75° Full Scale
- 0.002° Resolution
- ±0.01° Accuracy

Trigger Switches
- 7.5 ~ 1000g Trigger Level
- Output: TTL Voltage/Relay
- 10,000g Shock Resistance

MEMS Pressure Sensors
- 0.1 ~ 3.5MPa Full Scale
- 0.15%FS Non Linearity
- 0~500kHz Frequency Response
02 MEMS Automotive Sensors

Air Flow Sensors

Electronic Modules

Sensor Chips

MAP

0.1~3.5M Pa Full Scale Range
3 Times Range Over Pressure
±1%~3% FS0(40°C~125°C) Tolerance

Air Bag Acceleration Sensors

0 ~ 1000 kg/h Measuring Range
2kHz ~ 8kHz Frequency Output
±15ms Response Time
±2% Accuracy

±2 ~ ±200g Full Scale
0.1mg Bias Stability
300ppm Scale Factor Stability
0.5%FS Non Linearity

MFS05-1-123
MFS05-1-132
MFS05-1-180
MFS05-1-182
MFS05-1-184
MFS05-207
MFS05-1-429
MFS05-1-515
MFS06-1-037
MFS07-1-900
MFS07-1-914
MFS03-1-187

More than 150 kinds of off the shelf Air Flow Sensors. Providing customized products.
RF MEMS Devices

RF MEMS Filters
- SiMF MEMS Band Pass Filters
- SiMF MEMS Band Stop Filters
- SiMF MEMS Low Pass Filters
- SiMF MEMS High Pass Filters

Frequency: 2 ~ 50GHz
Insert Loss < 2dB
Injection > 50dB
Bandwidth: 5% ~ 80%

Band Pass Filters
Band Stop Filters
Low Pass Filters
High Pass Filters

More than 1500 kinds of off-the-shelf products, providing customized products.

MEMS Circulators
- 12 ~ 40GHz Frequency Band
- 5% ~ 25% Band Width
- 0.5dB Max Insert Loss
- 5 ~ 20W Average Power

SiCir MEMS Circulators

MEMS Isolators
- 12 ~ 40GHz Frequency Band
- 5% ~ 25% Band Width
- 0.5dB Max Insert Loss
- 20dB Isolation

Micro Integrated LC Filters
- 500MHz ~ 20GHz Frequency
- 10% ~ 100% Band Width
- 1.6:1 VSWR
- 50Ω Impedance

Micro Integrated LC Filters
MEMS Pressure Sensor Dies

**MPC10 MEMS Pressure Sensor Dies**
- Dry Etching
- 3.6KPa ~ 14KPa Full Scale
- Gauge
- ±0.3 %FS Non Linearity

**MPC20 MEMS Pressure Sensor Dies**
- SOI
- 100KPa ~ 1MPa Full Scale
- Absolute
- ±0.15 %FS Non Linearity

**MPC30 MEMS Pressure Sensor Dies**
- Si-Si Bonding
- 35KPa ~ 70KPa / 700KPa ~ 20MPa Full Scale
- Absolute
- ±0.15 %FS Non Linearity

**MPC40 MEMS Pressure Sensor Dies**
- Flip Chip
- 100KPa ~ 1MPa Full Scale
- Absolute
- 0.15 %FS Non Linearity

MEMS Mass Flow & Air Velocity Sensors

**MEMS Air Velocity Sensors**
- ±0.05 ~ ±10m/s Full Scale
- ±(1 % F.S. + 2 % m.v.) Accuracy
- ≤10 ms Response time

**MEMS Mass Flow Sensors**
- 0 ~ 200L/min Full Scale
- ±(1 % F.S. + 2 % m.v.) Accuracy
- ≤10 ms Response Time

**MEMS Gas Meters**
- 0.016 ~ 6 m³/h Measuring Range
- 1.5% Accuracy
- Temperature & Gas Composition Compensation

**MEMS Gas Flow Meters**
- 2 ~ 200 m³/h Full Scale
- ±(0.5% F.S. + 1 % m.v.) Accuracy
- ≤10 ms Response Time
MT Microsystems Co., Ltd. is the leading MEMS technology and production company in China based on nearly 20 years R&D and innovation background. The first 6-inch pure MEMS Fab of China was established in MT Microsystems with MES and SPC quality control systems serving high yield MEMS fabrication.

MT Microsystems provides the customers total MEMS product solution including design, fabrication, packaging, module integration and testing. Experienced engineers, world-class technology and advanced manufacture competence assure the best product quality. A team of outstanding sales and marketing group supplies the top-level service to the customers.

MT Microsystems is certificated by ISO9001 and TS16949.

MEMS Products

- MEMS Sensors
- MEMS Automotive Sensors
- RF MEMS Devices
- MEMS Pressure Sensor Dies
- MEMS Mass Flow & Air Velocity Sensors

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